

REMARKS

Status of Claims:

Claims 1, 3, 8, 14, 16, 26, and 36 are amended. Claims 1-45 remain for examination.

Prior Art Rejections:

Claims 1, 3-11, 13-14, 16-23, 25-33, 35-43, and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanimoto et al. (U.S. Patent No. 6,075,776) in view of McNamara (U.S. Patent No. 6,262,976.) Claims 2, 12, 15, 24, 34, and 44 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanimoto et al. in view of McNamara and further in view of Rao (U.S. Patent No. 6,789,118).

The examiner's rejections are respectfully traversed.

Claim 1 of the present application recites a communications system which disconnects the server from a client terminal upon meeting of at least one disconnection condition. As amended, claim 1 recites a feature of "a memory for storing information about a plurality of separate and distinct disconnection conditions regarding disconnection of said plurality of client terminals, wherein some of said plurality of client terminals have different disconnections conditions than others." Figure 2 of the present application provides one example of this features. As shown in Figure 2, user identifiers corresponding to different client terminals have different disconnection conditions. In another example of this feature, the present specification describes setting the disconnection condition for each user at the time of contract formation between a service user and a service provider, wherein the disconnection condition depends on the service plan of the contract. (See Page 23, lines 4-9 of the present application.) Hence, users with different service plans have different disconnection conditions. The feature described in the present paragraph is neither described nor suggested by Tanimoto, McNamara, nor Rao, individually or in combination.

Tanimoto describes a method of disconnecting the connection between a TE (client terminal) and a RAC (server) when the elapsed time since the last data packet transmission exceeds a threshold time. (Tanimoto, col. 6, lines 55-61.) The goal of Tanimoto is to detect

terminals which have already been disconnected but the disconnection has not yet been recognized by the server. (Tanimoro, col. 1, lines 39-42.)

McNamara describes a method of disconnecting a terminal when the terminal generates excess packets (exceeds the bandwidth limit), or “behaves in an unordered or suspicious way.” (McNamara, col. 36, lines 45-54.) The goal of McNamara is to prevent network congestion. (McNamara, col. 36, lines 42-44.)

Rao describes a method of disconnecting a user by comparing the user’s QoA (quality of access) level to a system resource usage threshold. According to Rao, when multiple users have the same QoA level, the disconnection occurs in a first-in-first-out manner. The threshold levels are associated with the QoA levels only, and not with individual client terminals. (Rao, col. 9, lines 7-15, and col. 16, lines 39-53.) Hence there is not a memory that stores the threshold for each client terminal. The goal of Rao is to optimize system resources. (Rao, col. 16, lines 24-26.)

Combining the teachings of Tanimoto, McNamara and Rao could result in a method in which the server disconnects the client based on multiple disconnection connections, such as the elapsed time since the last data transmission, the bandwidth, and the QoA level. However, even in combination, the cited references do not describe or suggest the feature of “a memory for storing information about a plurality of separate and distinct disconnection conditions regarding disconnection of said plurality of client terminals, wherein some of said plurality of client terminals have different disconnections conditions than others” as recited in claim 1. The prior arts are directed toward optimizing network connections or system resources, hence they only need to maintain one set of disconnection conditions for all users, and they lack any teaching or motivation to maintain different disconnection conditions for different users.

In view of these differences, it is thus submitted that the PTO has not made out a *prima facie* case of obviousness under the provisions of 35 U.S.C. § 103, and thus claim 1 is patentable over prior art. Similar limitations as discussed above are also found in all of applicant’s independent claims. These claims are thus likewise deemed patentable.

Applicant's dependent claims are deemed patentable at least by virtue of their dependency from patentable claims.

In addition to the reasons stated above, claims 5, 17, and 27 recite a feature wherein the disconnection occurs “when a time period that has elapsed after a log-in operation to said server by said client terminal exceeds said maximum allowable time period stored in said memory.” This feature is not described or suggested in any of the references. As discussed above, Tanimoto describes a disconnection condition based on the elapsed time since the last packet (last communication) between the client terminal and the server, not the total elapsed time after log-in. McNarmara uses data packet rate as the disconnection condition, and Rao uses the QoA (quality of access) level. Therefore, claims 5, 17, and 27 are allowable for this reason in addition to the reasons stated above for claim 1.

Claims 8, 20, 30, and 40 recite a disconnection condition based on the “a maximum allowable simultaneous jointer count that specifies a number of said plurality of client terminals that can be simultaneously connected to said server before said client terminal is to be disconnected, in conjunction with said user identifier.” This feature is neither described nor suggested by Tanimoto (elapsed time since last packet), McNamara (packet rate), or Rao (QoA level). Therefore, claims 8, 20, 30, and 40 are allowable for this reason in addition to the reasons stated above for claim 1.

Claims 13, 25, 35, and 45 recite a feature wherein the “memory stores a line disconnecting order in conjunction with said user identifier.” As discussed above, this feature is neither described nor suggested by any of the cited references. Rao does describe a prioritization of users using the corresponding QoA (quality of access) levels. However, this QoA level is determined each time a connection is made between the client terminal and the server, hence the disconnecting order is not stored in a memory as in the present invention. (Rao, col. 15, lines 59-63.) Therefore, claims 13, 25, 35, and 45 are allowable for this reason in addition to the reasons stated above for claim 1.

Claims 9, 21, 31, and 41 recite a feature wherein the “memory stores a maximum allowable traffic value that specifies a level of allowable traffic for said client terminal in a

predetermined period of time.” In this feature, the disconnection condition depends on the total traffic over a predetermined period of time. This feature is not described or suggested by any of the cited references. McNamara describes a disconnection condition as when the terminal generates excess packets (exceeds the bandwidth limit), or “behaves in an unordered or suspicious way.” (McNamara, col. 36, lines 42-54.) As is well known to those skilled in the art, the generation of excess packets or the exceeding of the bandwidth limit refer to the rate of data transfer. In contrast, the feature in claims 9, 21, 31, and 41 refer to the total traffic volume over a predetermined period of time, not the rate of data transfer at any given time. Therefore, claims 9, 21, 31, and 41 are allowable for this reason in addition to the reasons stated above for claim 1.

Conclusion:

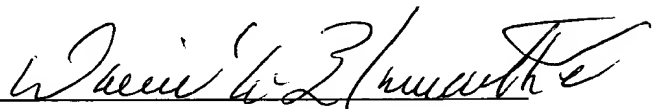
Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application. The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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